

REMARKS

This Amendment accompanies a Request for Continued Examination, and is in response to the final Office Action dated April 2, 2010. Reconsideration and allowance of the rejected claims in view of the foregoing amendments and remarks are respectfully requested.

Status of the Claims

Claims 28-40 and 42-57 are pending in the application. Claims 1-27, 34 and 41 have been cancelled. Claims 28, 29, 31, 36, 38 and 44-51 are withdrawn. Claims 30, 32-35, 37, 39, 40, 42, 43 and 52-57 remain rejected. More specifically, claims 30 and 37 are rejected under 35 U.S.C. §102(e) as allegedly being anticipated by U.S. Pat. No. 6,802,659 to Cremon (Cremon). Claims 32-35, 39, 40, 42, 43, and 52-57 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Cremon.

Response to 35 U.S.C. §102 Rejection of Claims 30 and 37

Amended independent claim 30 recites, in part, a consumable comprising an image receiving tape and a tag holding at least one set of templates, each template within the set comprising a format suitable for printing on the size of image receiving tape comprised in the consumable, wherein the tag is arranged to transmit information associated with the at least one set of templates via a contactless link in the form of electromagnetic waves, thereby allowing a printer to print in accordance with the at least one set of templates stored on said tag.

Cremon discloses an apparatus having a roll of material 8 and an RFID tag 7 positioned thereon, wherein the RFID tag includes information for proper printing settings, such as label dimensions. *See, e.g.*, col. 7, lines 42-47; col. 5, lines 31-36 and col. 8, lines 7-18. However, Cremon fails to disclose or suggest a tag holding a set of templates, *each template* comprising a *format* suitable for printing on the *size* of image receiving tape comprised in the consumable, as recited in independent claim 30. As explained in paragraph [0064] of the present disclosure, the set of templates differs depending upon the size of the

consumable or tape cassette. (*See* Application paragraph [0064] “For example, a 24 mm tape cassette would have information about a certain set of printable templates which would differ from that for, for example 18 mm tape”). While Cremon discloses “label dimensions” (*see, e. g.,* col. 8, line 10 and lines 41 and 42), these relate to the length and width of a *single* label disposed on a tape, rather than the dimensions of a number of different labels, let alone at least one set of templates, wherein each template within the set has a format suitable for printing on the size of image receiving tape, as recited in claim 30. Consequently, it is respectfully submitted that the Cremon reference cannot anticipate claim 30, and claim 30 is in allowable form.

Further, the Cremon reference cannot render amended claim 30 obvious because the reference completely lacks the set of templates limitation, e.g., each template within the set comprising a format suitable for printing on the size of image receiving tape comprised in the consumable. Therefore, there cannot be a proper *prima facie* case of obviousness, and amended claim 30 is in allowable form.

Still further, Cremon also fails to render amended claim 30 obvious because the needed modifications to the Cremon apparatus would require significant redesign, and would substantially alter the operation of the Cremon apparatus. For example, in Cremon, the printer prints labels in various standard formats. *See* col. 8, lines 37-43. By reading a code from the RFID tag, the printer determines which format to use. *See* col. 5, lines 32-34 (“a code is read from the RFID tag...the code is used in various ways; for setting of various parameters of the printer; for controlling the layout of the labels printed”). Therefore, the printer of Cremon must have preloaded standard formats and cannot print data from a set of templates on the consumable. If one were to include a set of templates, each template within the set having a format suitable for printing on the size of tape received in the cassette, thereby allowing the printer to print in accordance with the at least one set of templates stored on said tag, as recited in claim 30, the *printer* of Cremon would have to be modified to include preloaded formats associated with each template within the set. This would require substantial reformatting of the Cremon printer and change the operation of the Cremon device. For these reasons as well, it is respectfully submitted that the Cremon reference cannot establish a proper *prima facie* case of obviousness, and claim 30 is in allowable form.

Amended independent claim 37 recites, in part, a consumable comprising a thermal transfer material, a tag holding parameter information comprising a torque value with which the material is to be wound up in a printer, and a transmitter for transmitting the information via a contactless link, thereby allowing a processor arranged to receive said information to control the torque value with which the printer winds the thermal transfer material.

In contrast, Cremon only generally discloses that information included in the RFID tag could be the “proper printer settings for the given media, for example: direct thermal or thermal transfer, paper or plastic.” See col. 8, lines 7-23. While the Office Action noted on page 4 that “Cremon teaches the speed of printing” (*see* col. 4, lines 54-65), the speed of printing is different from the torque with which material is to be wound up in a printer. Speed refers to a distance over a period of time and may be measured, for example, in feet per hour (ft/h), feet per second (ft/s), inch per minute (in/min), inch per second (in/s), meter per second (m/s) or mile per hour (mi/h). Torque, however, is a moment of force and may be measured, for example, in foot-pound force (g (gravity) \times 1 lb \times 1 ft), inch-pound force ($g \times$ 1 lb \times 1 in), or meter kilogram (N \times m/g). *See* http://en.wikipedia.org/wiki/Conversion_of_units (attached as Appendix I). This difference is understood, for example, in the use and operation of bevel gears in printing presses. *See* http://en.wikipedia.org/wiki/Bevel_gear (“By increasing or decreasing the ratio of teeth between the drive and driven wheels one may change the ratio of rotations between the two, meaning that the rotational drive and torque of the second wheel can be changed in relation to the first, with speed increasing and torque decreasing, or speed decreasing and torque increasing.”)(attached as Appendix II). As such, Cremon does not disclose or suggest that the RFID tag holds parameter information about the *torque* value with which the material is to be wound up in a printer, as recited in claim 37. Therefore, it is respectfully submitted that the Cremon reference cannot anticipate amended claim 37, and amended claim 37 is in allowable form.

Further, the Cremon reference cannot render amended claim 37 obvious because the reference completely lacks the limitation the “torque value with which the material is to be wound up in a printer.” Therefore, the Cremon reference cannot establish a

proper *prima facie* case of obviousness, and amended claim 37 is in allowable form for this reason as well.

Response to 35 U.S.C. §103 Rejections of Independent Claims 32, 39 and 52

Amended independent claim 32 recites, in part, a consumable comprising a substrate carrying a plurality of preformed labels and providing a plurality of printable areas on each preformed label, and a tag holding information identifying the plurality of printable areas of each preformed label, such that a printer prints in accordance with the plurality of printable areas of each preformed label.

In contrast, Cremon discloses label dimensions that relate to the length and width of a *single label* disposed on a tape. *See* col. 8, lines 41 and 42. Cremon fails to disclose or suggest a tag holding information *identifying the plurality of printable areas of each* preformed label, such that a printer *prints* in accordance with the *plurality of printable areas of each* preformed label, as recited in amended claim 32.

Further, the Cremon reference is not sufficient to establish a *prima facie* case of obviousness relative to claim 32. Applicants respectfully submit the final Office Action only generally provides that “Cremon teaches the roll of material having the RFID tag to transmit the parameter information and the status of the roll...However, it would have been obvious to one of ordinary skill in the art...to utilize the teachings of Cremon to set the printer properly with parameters information stored in the RFID tag according to the type of the roll such as a preformed/marks.” *See* page 3, Office Action. However, there is no mention as to why the invention of claim 32 (e.g., “tag holding information *identifying the plurality of printable areas of each* preformed label, such that a printer *prints* in accordance with the *plurality of printable areas of each* preformed label”) would be obvious in view of Cremon. The Supreme Court in *KSR* noted that the analysis supporting a rejection under 35 U.S.C. §103 should be made explicit. *See* MPEP Section 2143 and *2010 KSR Guidelines Update* (“Simply stating the principle...without providing an explanation of its applicability to the facts of the case at hand is generally not sufficient to establish a *prima facie* case of obviousness”). As such, it is respectfully submitted that the Cremon reference is not

sufficient to establish a *prima facie* case of obviousness, and amended claim 32 is in allowable form.

Independent claim 39 recites, in part, a consumable comprising an image receiving tape, a tag holding a prestored message to notify a user to order more tape when there is insufficient length of image receiving tape remaining for a printing operation, and a transmitter for transmitting said prestored message via a contactless link in the form of electromagnetic waves, whereby said prestored message can be displayed at a printing apparatus.

While Cremon discloses an RFID tag notifying the printer about the number of labels in a roll for alerting operators to reload the rolls (col. 10, lines 39-52), Cremon fails to disclose or suggest a tag holding a prestored message to notify a user to order more tape when there is insufficient *length* of tape remaining, as recited in claim 39. Cremon further fails to disclose or suggest displaying such a prestored message relating to the insufficient length of image receiving tape at the printing apparatus, as also recited in claim 39. For these reasons, it is respectfully submitted that Cremon cannot establish a *prima facie* case of obviousness relative to claim 39.

Further, Cremon also fails to render claim 39 obvious because the needed modifications to the Cremon apparatus would require significant redesign, and would substantially alter the operation of the Cremon apparatus. In Cremon, RFID tags 6 placed in the media or printer ribbon rolls are read as a new set of labels or ribbon is placed into the printer. The printer is told what size labels are present and/or the number of labels that are in a roll, allowing the printer to call for reloading before running out of labels. As noted, the printer of Cremon must have preloaded standard formats, here relating to the number or sizes of labels in each roll loaded into the apparatus, and, therefore, cannot order more tape based on the length of tape remaining in the roll. Therefore, the *printer* of Cremon would have to be modified to include preloaded formats associated with the prestored message that correspond to an insufficient length of image receiving tape. The printer would also have to provide status information about the amount of image receiving tape remaining in the roll, which is updated in dependence upon the output of a tape usage monitoring means. *See* Application, paragraph [0021]. Such a modification would require substantial reformatting

of the Cremon printer and change the operation of the Cremon device, as the device would have to identify the length of the tape which has been used, regardless of the number of labels which have been produced. As such, the Cremon reference fails to render amended claim 39 obvious, and claim 39 is in allowable form.

Lastly, independent claim 52 recites, in part, a consumable comprising a continuous supply of image receiving substrate which carries markings allowing tape usage to be monitored, a tag holding status information identifying the length of image receiving tape remaining for a receiving image, a transmitter for transmitting the information and a receiver for updating the status information.

In contrast, the printer in Cremon is told what size labels are present and/or the number of labels in a roll, allowing the printer to reload before running out of labels. *See, e.g.,* col. 10, lines 47-50. Cremon does not disclose or suggest a continuous supply of image receiving substrate which carries markings allowing the tape usage to be monitored, as recited in claim 52, much less a tag holding status information identifying the length of image receiving tape remaining for a receiving image, as also recited in claim 52.

Further, Cremon also fails to render claim 52 obvious because the needed modifications to the Cremon apparatus would also require significant redesign, and would substantially alter the operation of the Cremon apparatus. As mentioned, in Cremon, the printer is told what size labels are present and/or the number of labels that are in a roll, allowing the printer to reload before running out of labels. Thus, the printer of Cremon must have preloaded standard formats relating to the number or sizes of labels in each roll loaded into the apparatus, and, therefore, cannot order more tape based on the length of tape remaining in the roll. Therefore, the *printer* of Cremon would have to be redesigned to include preloaded formats that correspond to status information identifying the length of tape remaining for a receiving image. The printer would also have to provide status information about the amount of image receiving tape remaining in the roll, which is updated in dependence upon the output of a tape usage monitoring means that monitors the markings on the substrate. To do so would require substantial reformatting of the Cremon printer and change the operation of the Cremon apparatus as well. For these reasons as well, the Cremon

reference is not sufficient to establish a *prima facie* case of obviousness, and claim 52 is in allowable form.

Response to 35 U.S.C. §103 Rejections of Dependent Claims 33-35, 40, 42, 43, & 53-57

Dependent claims 33-35, 40, 42, 43 and 53-57 depend from one of independent claims 30, 32, 37, 39 and 52 either directly or through intervening claims. Accordingly, the dependent claims are also in allowable form.

In view of the above amendment and remarks, Applicants respectfully submit the pending application is in condition for allowance. In the event any additional fees are due, kindly charge the cost thereof to our Deposit account No. 13-2855.

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Respectfully submitted,

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